DigiTech RP1000

Guitar multi-effects processor

On top of a wealth of quality effects, the latest addition to DigiTech's renowned RP series, the RP1000, features switchable external amp and stomp box loops for maximum on-stage flexibility.

Bob Thomas

Back in the late 1970s, I reckoned that owning a CSL Wah-Fuzz-Swell and an MXR Phase 90 was the absolute height of effects cool and couldn't think of any reason to buy anything else — until some kind audience member liberated the CSL from a stage somewhere near Limoges during a tour in France. Not long after that incident I stopped touring and went to work in a music shop, with the result that I ended up spending a not inconsiderable amount of money trying and buying more pedals than any sane person (especially one who wasn't gigging) would ever need.

Over the intervening years the collection has ebbed and flowed, and is now pretty much non-existent, since for recording and rehearsal I've moved over to modern (and vintage) rackmounted, studio-grade effects units for all my time-based effects, with a modern boutique distortion pedal at the head of the chain for when those moments of madness strike. And wah and volume nowadays come courtesy of a couple of original 1970s, mains-powered Morleys.

All of which means that it's taken me 30 years or so to go from a simple, two-pedal setup to two pedals plus a rack with enough gear in it to outfit a pretty respectable home studio and that weighs enough to need a trolley for a long carry. As you can imagine, over the last 12 years or so I've had a good look at the effects and amplifier-modelling multi-effects units that have entered the market, and have even (for relatively short periods) used a couple of them on stage. Moore's Law (named for Graham Moore, the co-founder of the Intel Corporation, who first propounded it) states that the power of technology doubles every two years, which means that present-day modelling technology should be 64 times more powerful than the first amp and effects modeller I ran into in 1997.

DigiTech's RP1000 guitar multi-effects processor is the latest in a pretty distinguished

> "...there isn't anything else around that'll do anywhere near as much in such an elegant and cost-effective manner."

line. Built of solid metal with an abundance of black and shiny metallic detailing, the RP1000 very definitely looks the part. Add in heavy-duty switches for you to stomp on and an integrated expression pedal, which can be set to control almost any of the RP1000's functions in real time, and you have the basis of a very tasty, floor-mounted multi-effects unit.

Essential reading

Included with the RP1000 is a manual, a Cubase LE 4 DVD and wall-wart power supply. Sadly (as is almost always the case), the power supply doesn't have a locking connector, which on units supposedly designed for stage use, I just can't understand. I'm slowly being driven to the conclusion that many manufacturers actually don't expect any of us, apart from a mad few, to be out gigging with their gear!

Cubase LE 4 (which you have to install and register) I don't intend to get into, other than to say that the RP1000, once you've downloaded and installed the USB drivers, offers two simultaneous stereo USB streams, which means that the stereo output of the RP1000 can be streamed to and from a computer in the expected manner.

The manual is only 50 pages long and is an essential read almost before you plug your guitar into the RP1000. Why? Well, there are 200 presets (100 factory and 100 user), which in Preset mode are accessed via the 10 footswitches in 10 banks of 10, and in Pedalboard mode are accessed in 20 banks of five via the lower row of footswitches, while the other five can switch individual effects types (Compressor, Distortion, Chorus/FX, Delay and Reverb) in or out. Under the alphanumeric display that tells you where you are and what you're doing, there's a 10 x 6 matrix accessed via Up/Down buttons, and six rotary encoders that let you adjust parameters. There are over 160 effects models (stomp boxes, choruses, delays, amps and cabs) plus 40 tone libraries and 40 effects libraries to navigate your way through. And that's just for starters!

As you'll by now have realised, the RP1000 is a pretty complex piece of kit, but if you read the manual (which can be freely downloaded from the DigiTech website) you'll also discover that it isn't actually that complicated to use and, in fact, is actually pretty intuitive once you know its major landmarks. As I don't have the entire issue of this magazine to fill with this review, I also don't intend to list out every effect pedal, amplifier model and cabinet model that the RP1000 offers, as you'll find all that information on DigiTech's website.

Modes and loops

I've already briefly described the two RP1000 top-level operating modes, Preset and Pedalboard, which are set via a front-panel switch that nestles below the Amp/Cabinet Bypass switch on the right of the matrix. Bypassing everything in the RP1000 is a simple matter of stepping on the footswitch that called up the current preset. It's worth noting that in Bypass mode your guitar doesn't go through any processing, which means that there isn't any degradation of your original sound in this mode.

The RP1000 also features two switchable external loops: 'stomp' and 'amp'. In the amp loop you have the choice of inserting your favourite preamp, or if you have a guitar amplifier with an effects send and return you can run the Amp Loop Send out to the input of your amplifier, connect the amp's effects send to the Amp Loop Return and run the output of the RP1000 back to the amp's effects return. The footswitchable stomp loop lets you insert your favourite pedals into the RP1000's effects chain, either before or after the internal amp model and the external amp loop. When you go into Bypass, these two loops remain active, and since your guitar's signal is unaffected, you've always got your pure amplifier and effect pedal tone sitting there. Some of us, in the past, have had to build switching pedalboards half a stage wide to get this level of functionality. In fact, when you're in pedalboard mode with the amp and cab simulation switched out, the RP1000 acts as a comprehensive, cost-effective and capable effects switching system, and its purchase could well be justified on that alone.

Just below the Stomp Loop footswitch sits the Tap Tempo footswitch, which lets you set delay times that are in time with your playing just by stepping on the footswitch in time with your music. You can experiment by tapping once per bar on the downbeat, twice per bar on the on beat and the offbeat, and then four times per bar... and so on. If you've never sync'ed delay times to your playing, you'll be surprised at just how much better the result sounds and feels.

The in-built tuner is another highly practical item. Stand on the current preset's footswitch for two seconds and the RP1000 cycles through Bypass to Tuner mode. The tuner is very easy to use, displaying the note played, with arrows to tell you when you're sharp or flat. If you're into detuning, no problem; you can pick alternate references, either in semitone format (down to G-flat) or between A427 and A453 should you need to move away from A440.

Three of the six rotary encoders that sit under the 10 x 6 matrix have their own top-level functions in Preset and Pedalboard modes. On the extreme left, knob one selects from the list of 40 amp tones in the Tone Library. Next, knob two does the same thing for the 40 effect chains in the Effects Library, and knob three controls the balance between effects and the dry signal. The other three encoders (knobs four, five and six) handle Amp Gain, Amp Level and Master Level, plus a selection of effects parameters in their parts of the matrix.

Processor operation

All of this means that you can set up a sound really easily. First, you decide your operating »

Performing Musician

DigiTech RP1000 £499

Conceptually, the RP1000 is probably the biggest pedalboard in the world, with an enormous amp and cabinet collection thrown in for good measure. Featuring switchable loops to interface with your existing amplifier setup and more tweakability than most of us could handle in a lifetime, the RP1000 is also intuitively easy to use and sounds great.

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Beneath the LED display are the 10 effects chain families and six rotary controls to adjust the various parameters for each model within the family.

» mode, depending on whether or not you want footswitch control of your effects. Next, you decide whether or not to bypass the amp and cabinet models, depending on whether you're running the RP1000 into a guitar amp or mixing console. Finally, you start building your basic sound by selecting one of the basic tones, which are essentially differing compressor, distortion, amp/cab, EQ and noise-gate settings; picking a set of post-amp effects chains of chorus, chorus plus delay, delay plus reverb, and so on; setting the effects level, amp gain and amp level (if you haven't bypassed the amp modelling); and adjusting the master level to your liking.

> "In the RP1000 you'll find a mouth-watering array of effects pedals, vintage and modern, current and obsolete..."

And off you go. Of course, if you don't like the RP1000 presets from either library, you can edit away to your heart's content on both.

You can also delve deep into the delights of programming the RP1000 via the X-Edit Editor/Librarian, which can be downloaded from the DigiTech website, and you'll need to ensure that you download all the files required to update your unit to Version 1.2 before sallying forth into its inner secrets.

Back at the RP1000, once you've got past the 'playing through the presets' stage you'll probably want to start programming your own, and that is where the fun starts. Presets 1 to 100 are the user presets and, when you first open the box, are identical to the factory presets residing in F1 to F100. It is your bounden duty to make sure that you change them all, and the RP1000 gives you access to modelled effects, amps and cabinets — not to mention all their possible parameters — that'll have you filling the memory slots in no time at all.

A wealth of effects

In the RP1000 you'll find a mouth-watering array of effects pedals, vintage and modern, current and obsolete: three wahs; three compressors; 23 distortions; 55 amps; 26 cabinets (no 1 x 10 or 2 x 10 though); three-band EQ with a swept mid (you can adjust the Q of all bands and move the bass EQ's frequency range via X-Edit); a noise gate that also acts as an auto swell; seven choruses; six flangers; four phasers; 10 delays; six reverbs; vibrato; Leslie; Univibe; two envelope filters; proprietary DigiTech effects, including the legendary Whammy; plus four more pitch-based effects. All of which makes available an impossibly large number of potential combinations.

Thoughtfully (and thankfully), DigiTech have introduced some order by laying out the effects chain as it should be, starting with a Wah and ending with a reverb. In between these two points sit the Compressor, Chorus/FX (which can be inserted before or after the amp/cabinet models), Distortion, the amp/cabinet models, Noise Gate, EQ, Volume (insertable before or after the post-amp/cab Chorus/FX), the post-amp/cab Chorus/FX, the post-Chorus/FX Volume, and finally the Delay.

Adjusting the parameters of all these groups of effects is where the 10 x 6 matrix comes into play. The 10 families in the effects chain run down the side, and the six rotary encoders control the various parameters for each model within each family. LEDs indicate which families are active at any one time, and selecting between them is accomplished by Up/Down keys sitting just below and to the left of the matrix. The alphanumeric display above the matrix tells you which model you're dealing with and the value that you're setting. It all might sound a little daunting, but it is extremely intuitive to use — the hard part is remembering all the models!

The expression pedal, in addition to its obvious volume, wah and whammy roles, can be set to control, in real time, almost every parameter accessible through the matrix. And to make your life simple, it is equipped with a 'V' switch so that a toe push can switch it into wah mode at any time. The top row of footswitches can be assigned to different roles when in Pedalboard mode, so you could, for example, use one to toggle chorus effect speeds between fast and slow.

Storing and connecting

Once you've tweaked and assigned to your heart's content, you can store the result in one of the user preset locations and start to have fun all over again. Just to add to this sense of *déjà vu*, the RP1000 also features a 20-second looper, which you can control via an external footswitch so that you can record a phrase and overdub and/or solo over it hands-free. Just as an aside, I've worked out that a looper is really useful during band soundchecks if you want to hear what's happening to your sound out front and you're not on a wireless system.

Getting your sound in and out of the RP1000 is also a fully featured area of operation. All the connectors sit on the back panel, and in addition »

» to the guitar input and amp and stomp loops you'll find stereo quarter-inch jacks and XLRs to connect to amps or mixers. The jacks have an Amp/Mixer level switch, and the XLRs always have speaker compensation active, as they're designed to always be run into a full-range audio system. There's a 3.5mm headphone output for those moments when inspiration strikes at midnight, together with a Ground Lift switch to help reduce hum loops, the USB connector, the stereo jack for the looper footswitch, and the aforementioned non-locking power connector.

Practical playing

The RP1000 is one of those units that is very hard to fault from a playing perspective. Once you've got your presets sorted, it's just a case of turning up, plugging up, tuning up and playing. The effects models are very authentic. I went through those where I have the original pedals, switching between original and model, and although there is a difference between the two, I don't think that you'd really notice it at a gig. The difference, to my ears, is in the dynamics of the sound. There isn't a huge difference and it isn't in any way offensive, but to me the modelled effect always sounded just that bit more compressed than the original.

On the amp/cabinet front, the choice is so huge that there's no way that anyone of mortal means could ever own all the originals in order to make meaningful comparisons. Essentially, they all sounded fine, and I preferred some amp and cabinet combinations to others. Going deeper into the modelled amps that I know well ('57 Tweed Deluxe, '65 Deluxe Reverb, '63 AC30 Top Boost, '65 JTM 45) through a variety of cabinet models, I came away very impressed indeed.

Nothing — and I mean nothing — sounds like a valve amp running hot through a good speaker cab, but the RP1000 comes pretty close, especially if you run it into a decent PA cab operating at amp-realistic levels. I ran the RP1000 from its XLR outputs, through a mixer, into my Bose L1 system, and had a great time remembering those four classic amps. Since I just happen to have a mint '65 Deluxe Reverb on loan, I set it up with an MXR Dynacomp, Distortion+ and flanger, plus a TC Electronic chorus, and compared the results directly with the RP1000's modelled equivalents running through the L1.

Looking at the results from a practical stage perspective, it was a close-run thing. Certainly, the real thing was, for me, more fulfilling to play on, but thinking about the average gig situation, I'd have to say that the RP1000 and a decent powered PA cab would often make a lot more sense than a vintage valve amp and a bunch of pedals laid out on the floor.

Running into the Deluxe with the amp/cab emulations turned off turns the RP1000 into probably the biggest pedalboard in the world. You just couldn't own all of the originals whose models reside in here — I haven't, and I've owned a lot of pedals. The ability to run your own preamps and pedals in the external loops is a really great facility, as I've got an Ethos Overdrive and a Groove Tubes Trio that I really like as front ends.

Enormously flexible hub

With an enormous amp and cabinet collection thrown in for good measure, switchable loops to interface with your existing amps and cabs, more tweakability than most of us could handle in a lifetime, great sounds and real ease of use, what's not to like?

On stage, you can either run the RP1000 into a PA-type backline or, with amp/cab emulations turned off, plug it into an amp. With the amp/cab emulations turned off, the RP1000 becomes a giant pedalboard and switcher. The ability to integrate it with your own preamps and effects pedals just makes it an even more enormously flexible hub for your on-stage setup. Whoever specified and designed the RP1000 certainly knew what he or she was doing, and once you delve into the model editing possibilities, you'll see just how good design can allow you to tailor a sound precisely to your needs.

So, it's built like a tank, sounds great, interfaces with anything you'll run into in stage and studio situations, is easy to programme, can be as simple or complex as you like, and is operationally controlled by footswitches and an integrated expression pedal. If you're looking for something that does what the RP1000 does, or even if you're just looking to downsize your existing pedalboard whilst adding to your pedal armoury, then there isn't anything else around I know of that'll do anywhere near as much in such an elegant and cost-effective manner. ■ PM

Tech Spec

RP1000

- **Pedalboard mode provides on/off and real-time control to any five RP1000 effects or parameters.**
- **14 heavy-duty vacuum-style footswitches control tap tempo, stomp box bank up/down, program select, and effect on/off. Footswitches also access tuner, bypass, and phrase looper functions.**
- **Amp/cabinet bypass.**
- **Built-in phrase looper, expression pedal and chromatic tuner.**
- **Switchable amp and stomp-box loops.**
- **40 tone and 40 effects libraries.**
- **200 presets (100 factory, 100 user).**
- **Over 160 effects including stomp boxes, choruses, delays, amps and cabinets.**
- **Up to five seconds of delay time.**
- **24-bit / 44.1kHz sample rate.**
- **DSP section: Audio DNA2 DSP processor.**
- **Large eight-character alphanumeric and two-character numeric LED display.**
- **Quarter-inch Left and Right Outputs; XLR Left and Right Outputs with ground lift.**
- **Amp/Mixer switch for driving amp or mixer.**
- **Looper footswitch input, for use with optional DigiTech FS3X.**
- **Stereo 3.5mm headphone output.**
- **Cubase LE 4 software included.**
- **Downloadable X-Edit Librarian software.**
- **Two-in, two-out USB audio streaming.**
- **Dimensions (WDH): 495 x 222 x 57mm.**
- **Weight: 3.6kg.**

In addition to the guitar input and amp and stomp loops, on the rear panel you will find stereo quarter-inch jacks and XLRs to connect to amps and mixers, plus an Amp/Mixer level switch.